

UNITED STATES DISTRICT COURT
DISTRICT OF MINNESOTA

State of Minnesota, by Michael Campion,
Its Commissioner of Public Safety,

Plaintiff,

Court File No. 0:08-cv-DWF-AJB

v.

**THIRD DECLARATION OF
THOMAS E WORKMAN JR**

CMI of Kentucky, Inc.,
A Kentucky Corporation,

Defendant

Robert J. Bergstrom, Craig A. Zenobian,
Shane M. Steffensen and Christopher D.
Jacobsen,

Plaintiff-Intervenors

I, Thomas E. Workman Jr, under oath do depose and say:

1. Source Code is so named because it may be processed in order to generate the object code that is present in every machine that runs the software represented by the source code. It is in essence the source of the object code, and is named "source code" for that reason.¹
2. A review of just the lines of source code customized for Minnesota is not meaningful, and would deviate from accepted scientific practices of source code review. Such extracts of computer instructions that the state proposes to supply for review cannot be processed by a compiler or assembler to create object code, and therefore these customized lines are not source code.²

¹ Microsoft Press Computer Dictionary, third edition, defines "Source Code" as follows: "Human readable program statements written in a high level or assembly language that are not directly readable by a computer."

² Dictionary of Computer Science Engineering and Technology, CRC Press 2001 provides a definition of source code as follows: "(1) computer instructions and data expressed in a form suitable for input an assembler, compiler, or other translator."

3. A printed version, or a PDF version which is produced by scanning a document that prints various lines contained in the electronic file which is source code, is not a representation which can be used to produce the object code, and thus is not "source code".
4. A printed version, representing some of the source code, whether in a bound book or on loose pages, is not useful in the process of performing a source code review, any more than a photograph of a gun is not useful to a forensic scientist who is examining criminal ballistics.
5. The source code review performed for the New Jersey version of the Draeger 7110 was carried out by companies retained by both the state of New Jersey and by the Defendants, The state of New Jersey and the Defendants each paid the cost of the source code review, and both and independently directed the source code review.
6. Working independently, both the state of New Jersey's experts, and the Defendant's experts, conducted their review without ever examining printed representations of the source code.
7. The full source code, to include compilers, assemblers, linkers, the makefile, and all procedures in their native electronic format – were transmitted to both experts by way of an email attachment, and the source code review was conducted in the laboratory of each of the experts.
8. Had either of the experts conducted their review using a printed representation of the source code, which would have severely limited the scope and the results that could be obtained, that expert would have been justifiably criticized by the other expert and by industry experts for having used an unacceptable technique for the review of source code.
9. Source code review is not performed at the manufacturer's offices, for good reason.
 - a. There are extensive materials related to the language used to write the source code, and related to the extensive literature of science upon which the formulas contained in the source code are based.

- b. Because much of this material was developed prior to the invention of the internet, and the material is only available the analyst in their library.
- c. Most of the material needed by the source code reviewer would not be available at CMI, since CMI has stated that CMI believes the only way to test CMI's machines is with black box testing.
- d. Even if the needed material was available for loan from CMI, the government would gain an unfair advantage of knowing what specific avenues were pursued by the Defendant's expert, knowledge they would never have if the review were performed in the expert's laboratory.
- e. Many of the steps performed by a computer analyst involve automated processing which requires more than an eight hour contiguous block of time.
- f. Any steps requiring more than eight hour of time could not be carried out by the Defendant's expert, but could be carried out by the government's expert.
- g. Requirements that provide for an opportunity of CMI to examine the work product of the expert, while such work product of the government's expert remains secret, produces an unfair advantage for the government.
- h. Scientists who carry out source code review work on multiple matters at one time, much as attorneys have multiple clients at any point in time.
- i. A requirement to perform the review at the CMI facility would necessitate identifying a source code reviewer who has no other book of business, or who could put all their other business on hold.
- j. The quality of a review performed by a scientist who has no other business would result in work performed by an individual of inferior skills, and would result in an inferior result for the Defendant.
- k. Even if an expert attempted to travel back and forth between the expert's lab and CMI, the resulting review would both cost thousands of dollars in travel time and travel expenses, and would result in an inferior review.

10. Proposals to redact the source code are unprecedented field of source code review.
11. Even when voting machines are reviewed, a task of great public importance, source code is not redacted.
12. The justification of protecting passwords is misrepresented in its importance, since employees who have left the employment of the state Minnesota know passwords.
13. Passwords are of no use to anyone who does not have physical access to an Intoxilyzer 5000EN.
14. Upon information and belief, the state does not provide for public access to the Intoxilyzer 5000EN machines.
15. Upon information and belief, CMI has prepared a version of the software for the Minnesota Intoxilyzer 5000EN which has not yet been deployed and installed in machines in Minnesota.
16. The new version contains modifications designed to correct known defects in the version of the machine that is currently in use, and the corrections contained therein were deemed serious enough by CMI to make the corrections in the new and pending version.
17. I know that CMI has in the past introduced new defects in the software when corrections to the software were not properly implemented.
18. A source code review should review changes from the version which was previously deployed in Minnesota. The source code should include prior versions of the source code.
19. My law practice included a component of Patent Prosecution, whereby I represented individuals in presenting their inventions before the patent office. I actively represented clients from the time I passed the Patent Bar Exam and was granted a license, until late 2003.

20. In early 2004, I ceased representation of clients before the patent office, and subsequently my name was removed from the roster of patent attorneys and agents published on the internet at the Patent Office website.
21. The US Patent office removed my name when I did not respond to a questionnaire that is periodically sent out to all active practitioners, a questionnaire that I never received.
22. Because I was not actively representing clients before the Patent Office, I did not file the petition that would have restored my name to the roster.
23. I have recently come to understand that removal of my name from the roster resulted in an administrative suspension of my license to represent clients before the Patent Office.

Further affiant sayeth not.

/s/ Thomas E. Workman Jr.
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